



## PATENT

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

*In re* the application of:

Katrina MIKHAYLICHENKO et al.

Application No. 10/816,487

Filed: March 31, 2004

For: PROXIMITY HEAD HEATING  
METHOD AND APPARATUS

) Group Art Unit: 1763  
)  
) Examiner: S. Macarthur  
)  
) Atty. Docket No. LAM2P451  
)  
) Date: July 19, 2007  
)  
) Confirmation No. 1220

**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on July 19, 2007.

Signed:

Diane Schwanbeck

## **INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
Post Office Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

The references listed in the attached PTO Form 1449, copies of the non-U.S. references of which are attached, may be material to examination of the above-identified patent application. Applicants submit these references in compliance with their duty of disclosure pursuant to 37 CFR §§ 1.56 and 1.97. The Examiner is requested to consider these references and to acknowledge such consideration by initialing the attached PTO Form 1449 at the appropriate locations.

References L thru P, M-2, N-2, and K-3 are in the Japanese language. The relevance of References L thru P, M-2, N-2, and K-3 may be ascertained by reviewing the corresponding English language abstracts (see References R thru U, W, R-2, S-2, and R-3, respectively). In addition, a computer-generated English translation of Reference N is attached.

The fee of \$180.00 set forth in 37 C.F.R. § 1.17(p) is attached hereto. The Commissioner is authorized to charge any additional fees that may be due to our Deposit Account No. 50-0805 (Order No. LAM2P451).

Respectfully submitted,  
**MARTINE PENILLA & GENCARELLA, LLP**

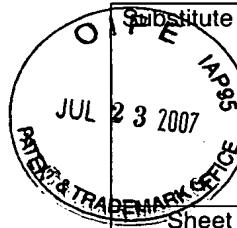


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**Customer Number 25920**



Substitute for form 1449/PTO

**Information Disclosure  
Statement By Applicant**  
(Use as many sheets as necessary)

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of

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Application Number	10/816,487
Filing Date:	March 31, 2004
First Named Inventor:	Katrina MIKHAYLICHENKO
Art Unit:	1763
Examiner Name:	S. Macarthur
Attorney Docket Number:	LAM2P451

**U.S. Patent Documents**

Examiner Initial	Cite No.	Document No.	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear
	A	4,367,123	1/1983	Beck	
	B	5,361,449	11/1994	Akimoto	
	C	5,472,502	12/1995	Batchelder	
	D	5,558,111	9/1996	Lofaro	
	E	5,601,655	2/1997	Bok et al.	
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	J	6,103,636	8/2000	Zahorik et al.	
	K	6,214,513	4/2001	Cai et al.	

**Foreign Patent Documents**

Examiner Initial	Cite No.	Foreign Patent Document No.	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear	Translation YES      NO
	L	JP 58-037190	3/1983	Shimamura		x
	M	JP 62-150828	7/1987	Ishio et al.		x
	N	JP 08-277486	10/1996	Kotani	x	
	O	JP 09-199488	7/1997	Noguchi et al.		
	P	JP 11-031672	2/1999	Saeki		x
	Q	EP 0 905 746	3/1999	Mertens et al.		

**Non Patent Literature Documents**

Examiner Initial	Cite No.	Include name of author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	R	Abstract of Japanese Patent Publication No. 58-037190, Publication Date: 04 March 1983, Patent Abstracts of Japan
	S	Abstract of Japanese Patent No. 62-150828, Publication Date: 04 July 1987, Patent Abstracts of Japan
	T	Abstract of Japanese Patent Publication No. 08-277486, Publication Date: 22 October 1996, Patent Abstracts of Japan
	U	Abstract of Japanese Patent Publication No. 09-199488, Publication Date: 31 July 1997, Patent Abstracts of Japan
	V	J.A. Britten, "A moving-zone Marangoni drying process for critical cleaning and wet processing," <i>Solid State Technology</i> , October 1997
	W	Abstract of Japanese Patent Publication No. 11-031672, Publication Date: 02 February 1999, Patent Abstracts of Japan

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Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute for form 1449/PTO				Application Number	10/816,487
<b>Information Disclosure Statement By Applicant</b> <i>(Use as many sheets as necessary)</i>				Filing Date:	March 31, 2004
				First Named Inventor:	MIKHAYLICHENKO, Katrina
				Art Unit:	1763
				Examiner Name:	S. Macarthur
				Attorney Docket Number:	LAM2P451
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	A-2	6,433,541	8/2002	Lehman et al.	
	B-2	6,446,358	9/2002	Mitsumori et al.	
	C-2	6,495,005	12/2002	Colgan et al.	
	D-2	6,555,017	4/2003	Rushford et al.	
	E-2	2003/0091754	5/2003	Chihani et al.	
	F-2	6,629,540	10/2003	Mitsumori et al.	
	G-2	2004/0069329	4/2004	De Larios et al.	
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						YES      NO
	K-2	EP 0 905 747	3/1999	Mertens et al.		
	L-2	WO 99/16109	4/1999	Mertens et al.		
	M-2	WO 99/49504	9/1999	Fukami et al.		x
	N-2	JP 2001-220688	8/2001	Tsutsui et al.		x
	O-2	WO 02/001613	1/2002	Verhaeverbeke et al.		
	P-2	WO 02/101795	12/2002	Lauerhaas et al.		
	Q-2	WO 03/014416	2/2003	Hongo et al.		

### Non Patent Literature Documents

Examiner Initial	Cite No.	Include name of author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	R-2	Abstract of Worldwide Patent Publication No. WO 99/49504, Publication Date: 30 September 1999, Patent Abstracts of Japan
	S-2	Abstract of Japanese Patent Publication No. 2001-220688, Publication Date: 14 August 2001, Patent Abstracts of Japan
	T-2	S. Owa et al., "Immersion lithography; its potential performance and issues," <i>Proc. of the SPIE</i> , Vol. 5040 (2003), pp. 724-733 (XP002294500)
	U-2	
	V-2	

Examiner Signature		Date Considered
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Examiner Initial	Cite No.	Document No.	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear
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	B-3	2005/0145265	7/2005	Ravkin et al.	
	C-3	2005/0145267	7/2005	Korolik et al.	
	D-3	2005/0145268	7/2005	Woods	
	E-3	6,954,993	10/2005	Smith et al.	
	F-3	2005/0217703	10/2005	O'Donnell	
	G-3	6,988,326	1/2006	O'Donnell et al.	
	H-3	6,988,327	1/2006	Garcia et al.	
	I-3	2006/0064895	3/2006	Garcia et al.	
	J-3	2006/0124153	6/2006	Yun et al.	

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						YES      NO
	K-3	JP 2003-151948	5/2003	Kasuga		x
	L-3	WO 03/087436	10/2003	Wang et al.		
	M-3	WO 2004/030051	4/2004	Woods et al.		
	N-3	EP 1 489 461	12/2004	ASML Netherlands		
	O-3	EP 1 489 462	12/2004	Vogel et al.		
	P-3					
	Q-3					

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	R-3	Abstract of Japanese Patent Publication No. 2003-151948 Publication Date: 23 May 2003, Patent Abstracts of Japan
	S-3	B.S. Lim et al., "Atomic Layer deposition of transition metals," <i>Nature Materials</i> , Vol. 2, November 2003, pp. 749-754
	T-3	Article entitled "Technology Backgrounder: Atomic Layer Deposition," 2004, pp. 1-7
	U-3	Tutorial entitled "Atomic Layer Deposition (ALD)," available at <a href="http://www.sigmaaldrich.com/Area_of_Interest/Chemistry/Materials_Science/Thin_Films, 2005, pp. 1-3.">http://www.sigmaaldrich.com/Area_of_Interest/Chemistry/Materials_Science/Thin_Films, 2005, pp. 1-3.</a>
	V-3	Wikipedia entry entitled "Chemical vapor deposition," available at <a href="http://en.wikipedia.org/wiki/Chemical_vapor_deposition, 2005, pp. 1-2.">http://en.wikipedia.org/wiki/Chemical_vapor_deposition, 2005, pp. 1-2.</a>

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